SONY

PXW-X200

Three 1/2-type Exmor™ CMOS Full HD sensor XDCAM camcorder with 17x zoom lens and XAVC recordings

Overview

Full HD XAVC Intra/Long GOP recordings and MPEG HD 422 50 Mbps with superb picture quality for broadcast applications such as newsgathering and documentaries The PXW-X200 three 1/2-type Exmor™ CMOS sensors compact XDCAM camcorder achieves high sensitivity and low noise recordings in Full HD XAVC Intra and XAVC Long GOP, as well as MPEG HD 422 50 Mbps MPEG HD 420 35 Mbps, MPEG IMX and DV. As the successor of PMW-200, the PXW-X200 has a lot of attractive features, including dual SxS memory card slots for simultaneous recordings, cache recordings, Slow & Quick function, a 3.5 inch-type QHD (960 x 540) colour LCD panel and a 17x Fujinon professional HD zoom lens with three independent rings with end stops, able to zoom from 29.3mm to 499mm (35mm equivalent). The PXW-X200 also has a built-in wireless operation capability, and also offers remote control, file transfer, monitoring via smartphones and tablet devices, and streaming*.
*A firmware version upgrade is required to activate this function.

- **Superb picture quality**

  Three 1/2-type Exmor™ CMOS sensors for high sensitivity and low noise images.

- **Multi-format recordings, including XAVC**

  Full HD XAVC Intra and XAVC Long GOP, as well as MPEG HD 422 50 Mbps MPEG HD 420 35 Mbps, MPEG IMX and DV.

- **Professional features**

  Includes dual SxS memory card slots for simultaneous recordings, cache recordings, Slow & Quick function and a 3.5 inch-type QHD (960 x 540) colour LCD panel.

- **17x Fujinon professional HD zoom lens**

  Independent focus, zoom and iris rings with end stops, able to zoom from 29.3mm to 499mm (35mm

equivalent).

- **Wireless operation capability**

  Offers remote control, file transfer, monitoring via smartphones and tablet devices, and streaming*.
  * Streaming function requires firmware upgrade.

Features

- **Three 1/2-inch type Exmor™ CMOS Full HD sensors offer superb picture quality**

  The PXW-X200 incorporates three 1/2-inch type Full-HD Exmor™ CMOS sensors to achieve high resolution, high sensitivity, low noise, and wide dynamic range. With these image sensors, the PXW-X200 achieves a high sensitivity of F12 at 1080/59.94i and F13 at 1080/50i – essential levels for professionals shooting under challenging lighting conditions.

- **17x professional HD zoom lens with three independent rings with end-stop and large focal length**

  The PXW-X200 is equipped with a 17x Fujinon professional HD zoom lens able to zoom from 29.3mm to 499mm (35mm equivalent). The 1/2-inch type lens has three independent control rings with end-stop, which allows manual control of focus, zoom and iris, making for better and faster adjustment.

- **High quality XAVC Intra and XAVC Log GOP recordings**

  The PXW-X200 supports not only MPEG HD 422 50 Mbps in MXF (Material eXchange Format), which is widely accepted by major broadcasters worldwide, but also XAVC Intra and XAVC Long GOP codecs. XAVC technology is based on the H.264 standard, which provides an exceptional performance compression technology. XAVC Intra (frame) compression means that every frame is encoded independent of the other frames – providing a better quality picture, without compromises. With a Long GOP codec, only certain frames are encoded individually. This allows the codec to squeeze the video into a much smaller bitrate than Intra technology. The main benefit is faster ingest and editing. XAVC Long GOP files also require less storage space than XAVC Intra files, providing budget savings on recording media. The XAVC codec adopts 10-bit sampling for high definition recording with rich tonal expression.

- **Switchable recordings for greater flexibility**

  As well as shooting at XAVC HD, MPEG HD 422 50 Mbps and MPEG HD 420 35 Mbps, the camcorder also supports DVCAM at 25 Mbps in MXF file format and MPEG IMX at 50 Mbps in UDF mode. MPEG HD 422 gives a high quality image with more detailed colour reproduction, as well as being ideal for chromakeying. High-quality MPEG HD422 50 Mbps is fully compliant with the latest EBU recommendations for long-form broadcast production and is widely accepted in broadcasting stations and production houses. This recording capability makes the PXW-X200 ideal for a wide range of broadcast applications, including newsgathering and documentary production.

- **Dual SxS media slots, "Simul"* or "Relay" recording, and independent record control**

  The PXW-X200 is equipped with two SxS memory card slots. The camcorder is compatible with SxS PRO+ and SxS-1 memory cards, XQD, SDXC and SDHC cards can be also used with an appropriate card adaptor. Two media slots can record in either "Simul" or "Relay" mode. "Simul" mode permits simultaneous recording to two memory cards, while "Relay" mode automatically switches recording from the first to the second memory card when the first is full. The user can set up the two Start/Stop buttons on the PXW-X200, one on the grip and one on the camcorder body, to independently start and stop recording on different memory cards while recording in Simul mode.
  * Simul recording mode requires firmware upgrade.

- **Cache recording**

  Once activated, the PXW-X200 continuously streams audio and video into its internal memory. When the REC START/STOP button is pressed, content buffered in the camcorder's memory is recorded onto the memory card at the start of the recording clip. The caching period can be set at up to 15 seconds. This function is useful when shooting a developing situation such as during news gathering, so as not to miss a critical moment.

- **Wireless file transfer and streaming***

  Users can simply attach the supplied Wireless LAN module to activate the wireless function on the PXW-X200.

And by connecting with separately sold internet routers, proxy or high-resolution files can be transferred to a cloud server, and the editing process can be started while location shooting continues. The PXW-X200 also has a streaming capability. By attaching a separately sold LTE USB module**, live video and audio can be streamed, watched, and recorded at a remote location.
* A firmware version upgrade is required to activate this function.
** This function works only with compatible modules.

- **Near Field Communication* (NFC) function with Content Browser Mobile™**

  A Near Field Communication (NFC) function allows easy, one-touch wireless LAN connection to a smartphone or tablet device without manual setting of the network parameters. A Content Browser Mobile** application enables users to monitor the currently shot video and to wirelessly control camcorder settings such as focus, zoom, iris, white balance, REC START/STOP, and more.
  * NFC allows close-range wireless communication between the PXW-X200 and an NFC-equipped smartphone or tablet device.
  ** This application can be downloaded from the Google Play Store or App Store.

- **Proxy recording on SD card**

  The PXW-X200 can record proxy video H.264 on an SD card. The resolution and bitrate of proxy video can be changed for a more flexible workflow. The proxy files are recorded in MP4 format for better compatibility with broadcast systems. The lightweight proxy video files are generated separately from the main line recording and recorded to SD cards for quick sharing of content over low-bandwidth mobile networks.

- **Multi Interface Shoe* (MI Shoe) for flexible connection without XLR cable**

  The PXW-X200 is equipped with a Multi Interface Shoe (MI Shoe) that has an electric interface in its mechanical attachment allowing the camcorder to communicate with an attached accessory. Accessories attached to the MI Shoe can be controlled by the camcorder. Using an MI Shoe connection, the audio signal from a UWP-D11 or UWP-D12 wireless microphone package can be input from the wireless microphone receiver to the PXW-X200 without an XLR cable. The power can be supplied from the PXW-X200 to the receiver and a battery is not required for the receiver operation. So, for example, if the HVL-LBPC video light is attached to the MI Shoe, video light power can be switched on and off from the camcorder.
  *MI Shoe will be activated by a firmware version upgrade, scheduled in Spring 2015.

- **3.5 inch-type QHD (960x540) colour LCD panel**

  The PXW-X200 is equipped with a large, easy-to-read, 3.5 inch-type QHD colour LCD panel, which helps to achieve precise focus control. This LCD panel also displays a range of information in support of shooting operations.

- **0.45-type LCD viewfinder**

  The PXW-X200 has the 0.45-type 1.23M pixels (852 x 480) LCD viewfinder (16:9).

- **Slow & Quick motion**

  A Slow & Quick Motion function is available on the PXW-X200. The recording frame rate can be selected from 1 frame per second (fps) to 60 fps both in 1080P and 720P format to create high-quality slow motion or quick motion images. The selectable frame rate depends on the CODEC selected in the camera.

- **ND filters**

  The PXW-X200 is equipped with a three position ND filter. Clear, 1/8ND or 1/64ND can be chosen.

- **Picture Profile**

  The PXW-X200/X280 has Picture Profile function. The settings can be saved on a SxS memory card and shared with the other PXW-X200 camcorders.

Wide choice of connections

- **Wide choice of connections**

  The camcorder offers numerous connections to suit the broadcast workflow, including 3G HD-SDI, HDMI®, USB, composite output, timecode input/output and genlock input. The 3G-SDI connector is able to output the 1080/59.94P or 50P signal. Down-conversion output from HD to SD is also possible. The i.LINK connector can be used for HDV when SP 1440 (FAT) mode is selected and for DV when DVCAM (FAT) mode is selected. Simultaneous output from both SDI and HDMI is possible. The Rec Trigger signal can be sent through SDI and HDMI to link an external recording device.

- **Timecode and Genlock**

  The PXW-X200 is equipped with timecode input/output (selectable) and genlock input interfaces. These interfaces are useful when shooting with multiple camcorders. The video signal timing and the timecode can be synchronized among the camcorders, and this helps when assembling video clips from multiple camcorders in the editing process.

- **GPS functionality***

  The PXW-X200 is equipped with a GPS device. The GPS data is automatically recorded in two file locations.
  * This function requires a firmware upgrade.

- **Catalyst Browse software from Sony**

  Free clip management tool for both PC & Mac that supports all Sony professional formats.
  Review footage on location, add metadata and review colour corrections.
  Seamless upgrade to advanced Catalyst Prepare media preparation tool.

Technical Specifications

General	
Mass	Approx. 2.4 kg (5 lb 4.7 oz) (body) Approx. 2.8 kg (6 lb 2.8 oz) (with lens hood, eyecup, BP-U30 battery, a SxS memory card)
Dimensions (W x H x D)*1	168×161×331 mm (6 5/8 x 6 3/8 x 13 1/8 inches) (without protrusions)
Power Requirements	DC12 V
Power Consumption	Approx. 18 W (while recording with LCD Off, EVF On, I/O Select Off and Wireless function Off) Approx. 23 W (while recording with LCD On, EVF Off, HD-SDI output and Wireless function On)
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to +60°C (-4°F to +140°F)
Battery Operating Time	With battery pack BP-U90: approx. 4.5 hours (while recording with LCD Off, EVF On, I/O Select Off and Wireless function Off) With battery pack BP-U60: approx. 3 hours (while recording with LCD Off, EVF On, I/O Select Off and Wireless function Off) With battery pack BP-U30: approx. 1.5 hours (while recording with LCD Off, EVF On, I/O Select Off and Wireless function Off)

Recording Format (Video)	
exFAT	XAVC-I mode: CBG, max. 112Mbps, MPEG-4 H.264/AVC - 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P, 50P XAVC-L 50 mode: VBR, max. 50Mbps, MPEG-4 H.264/AVC - 1920x1080/59.94P, 50P, 59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P, 50P XAVC-L 35 mode: VBR, max. 35Mbps, MPEG-4 H.264/AVC - 1920x1080/59.94P, 50P, 59.94i, 50i, 29.97P, 23.98P, 25P XAVC-L 25 mode: VBR, max. 35Mbps, MPEG-4 H.264/AVC - 1920x1080/59.94i, 50i
exFAT	MPEG HD422 mode: CBR, 50Mbps, MPEG-2 422P@HL - 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P, 50P, 29.97P, 23.98P, 25P MPEG HD420 HQ mode: VBR, max. 35Mbps, MPEG-2 MP@HL - 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1440x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P,50P,23.98P(2-3 Pull Down) DVCAM mode: CBR, 25Mbps, DVCAM - 720x480/59.94i, 29.97PsF - 720x576/50i, 25PsF
UDF	MPEG HD422 mode: CBR, 50Mbps, MPEG-2 422P@HL - 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P, 50P, 29.97P, 23.98P, 25P MPEG HD420 HQ mode: VBR, max. 35Mbps, MPEG-2 MP@HL - 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1440x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P,50P,23.98P(2-3 Pull Down) MPEG IMX50 mode: CBR, 50Mbps, MPEG-2 422P@ML Intra - 720x486/59.94i, 29.97PsF - 720x576/50i, 25PsF DVCAM mode: CBR, 25Mbps, DVCAM - 720x480/59.94i, 29.97PsF - 720x576/50i, 25PsF
FAT	MPEG HD420 HQ mode: VBR, max. 35Mbps, MPEG-2 MP@HL - 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1440x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P,50P, 29.97P, 25P, 23.98P MPEG HD420 SP mode: CBR, 25Mbps, MPEG-2 MP@H-14 - 1440x1080/59.94i, 50i, 23.98P(2-3 Pull Down) DVCAM mode: CBR, 25Mbps, DVCAM - 720x480/59.94i, 29.97PsF - 720x576/50i,25PsF Proxy: H.264 - 1280x720: 9Mbps - 640x360: 3Mbps - 480x270: 1Mbps - 480x270: 500Kbps

Recording Format (Audio)

exFAT	XAVC-I mode: LPCM 24-bit, 48kHz, 4ch XAVC-L mode: LPCM 24-bit, 48kHz, 4ch MPEG HD422 mode: LPCM 24-bit, 48kHz, 4ch MPEG HD420 HQ mode: LPCM 16-bit, 48kHz, 4ch DVCAM mode: LPCM 16-bit, 48kHz, 4ch
UDF	MPEG HD422 mode: LPCM 24-bit, 48kHz, 4ch MPEG HD420 HQ mode: LPCM 16-bit, 48kHz, 4ch IMX50 mode: LPCM 24/16-bit, 48kHz, 4ch DVCAM mode: LPCM 16-bit, 48kHz, 4ch
FAT	MPEG HD420 HQ mode: LPCM 16-bit, 48kHz, 4ch MPEG HD420 SP mode: LPCM 16-bit, 48kHz, 4ch DVCAM mode: LPCM 16-bit, 48kHz, 2ch Proxy: AAC-LC, 48kHz, 128kbps, 2ch

Lens

Lens Mount	Fixed
Zoom Ratio	17x (optical), servo/manual
Focal Length	f = 5.6-95.2 mm (35 mm equivalent: 29.3-499 mm)
Iris	F1.9-F16 and close, auto/manual selectable
Focus	800 mm to ∞ (Macro Off), 50 mm to ∞ (Macro On, Wide), 800 mm to ∞ (Macro On, Tele), AF/MF/Full MF selectable
Image Stabilizer	On/Off selectable, shift lens
Filter Diameter	M77 mm, pitch 0.75mm

Camera Section

Imaging Device (Type)	3-chip 1/2-inch type “Exmor” Full HD CMOS
Effective Picture Elements	1920 (H) x 1080 (V)
Built-in Optical Filters	Clear, 1: 1/8ND, 2: 1/64ND
Sensitivity	F12 (typical, 1920 x 1080/59.94i mode) F13 (typical, 1920 x 1080/50i mode)
Minimum Illumination	0.09 lx (typical, 1920x1080/59.94i, F1.9, +18 dB gain, with 64-frame accumulation, Gamma off, 100% video level) 0.02 lx (typical, 1920x1080/59.94i, F1.9, +18 dB gain, with 64-frame accumulation, Gamma on, 50% video level)
S/N Ratio	58dB (Y) (typical)
Shutter Speed	1/32 sec to 1/2,000 sec
Slow & Quick Motion Function	XAVC Intra/Long mode: - 1080P: 1-30 and 60 fps in NTSC setting, 1-25 and 50 fps in PAL setting - 720P: 1-60 fps in NTSC setting, 1-50 fps in PAL setting MPEG HD422 mode: - 1080P: 1-30 fps in NTSC setting, 1-25 fps in PAL setting - 720P: 1-60 fps in NTSC setting, 1-50 fps in PAL setting MPEG HD420 HQ mode: - 1080P: 1-30 fps - 720P: 1-60 fps
White Balance	Preset (3200K), Memory A, Memory B/ATW
GPS*2	Yes
Wireless functions	Yes
NFC	Yes

Input/Output

Audio Input	XLR-type 3-pin (female) (x2)

HDMI Output	Type A (x1)
SDI Output	BNC (x1), 3G/HD/SD selectable
Composite Output /GENLOCK-IN	BNC (x1)
Audio Output	A/V multi connector (x1)
USB	USB device, mini-B (x1)
TC in/out	BNC (x1)
Lens Remote	8-pin, round (x1)
DC Input	DC jack (x1)
Shoe	Multi Interface Shoe (x1)
Headphone Output	Stereo mini jack ø3.5mm (x1)
Option	4-pin Type A (x1)

Monitoring

Viewfinder	0.45-inch type color LCD: 852 (H) x 480 (V), 16:9
LCD	3.5-inch type color LCD monitor: 960 (H) x 3 (RGB) x 540 (V), 16:9

Built-in Microphone

Built-in Microphone	Omni-directional stereo electret condenser microphone

Media

Type	ExpressCard/34 slot (2) (for XAVC/MPEG/IMX/DV) SD/SDHC (1) (for Proxy)

Supplied Accessories

Supplied Accessories	Lens hood (1), pre-installed to the Camcorder EVF large eyecup (1), pre-installed to the Camcorder Infrared Remote Commander (1) Wireless LAN module IFU-WLM3 (1) Accessory shoe kit (1) Battery pack BP-U30 (1) Battery charger BC-U1 (1) Power Code (1) USB cable (1) Audio connecting cable (1) Shoulder strap (1) Lithium battery (CR2032 for data backup) (1), Pre-installed to the Camcorder Lithium battery (CR2025 for the IR Remote Commander) (1), Pre-installed to the IR Remote Commander Warranty booklet (1) “Before Using this Unit” (1) CD-ROM “Operating instructions” (1)

Optional Accessories

Optional Accessories	BP-U30/BP-U60/BP-U60T/BP-U90 Rechargeable Battery pack, BC-U1/BC-U2 Battery Charger/AC Adaptor, HVL-LBPC Battery Video Light, UWP-D11/UWP-D12 Wireless Microphone Package, SBS-64G1A/SBS-32G1A SxS-1 Memory Cards, QD-G128A/QD-G64A/QD-G32A, XQD G Series Memory Cards SBP-128B/SBP-64B SxS PRO+ Memory Cards MS-HX32B/MS-HX16B/ MS-HX8B Memory Stick PRO-HG Duo™, ECM-VG1 Electret Condenser Microphone, SMAD-P3 MI Shoe Mount Adaptor* required for cable-free operation with UWP-D11/UWP-D12, QDA-EX1 XQD ExpressCard Adaptor, ECM-MS2 Electret Condenser Microphone, MEAD-SD02 SD Card Adaptor for XDCAM Series, ECM-673 Electret Condenser Microphone, MEAD-MS01 Memory Stick Adaptor for XDCAM EX.

Notes

*1	The values for dimensions are approximate.
*2	A firmware version upgrade is required to activate this function (early 2015).

Accessories

SMAD-P3

Multi Interface Shoe (MI Shoe) adaptor for cable-free connection

Batteries and Power Supplies

BC-U1

Battery charger/AC adaptor for BP-U90/U60/U30 Lithium-ion battery

BC-U2

Two-channel simultaneous battery charger/AC adaptor for BP-U90/U60/U30 Lithium-ion battery

BP-U30

Lithium-ion Battery

BP-U60

Lithium-ion Battery

BP-U60T

Lithium-ion battery (56Wh) with power out terminal

PSZ-HA1T

1TB Hard Disc Drive

PSZ-HA50

500GB Hard Disc Drive

PSZ-SA25

256GB Solid State Drive

Shotgun

ECM-673

Short Shotgun Electret Condenser Microphone.

ECM-674

Affordable shotgun Electret condenser microphone

ECM-678

Shotgun Electret condenser microphone

BP-U90

Lithium-ion battery (85 Wh)

Cases

LCS-BP1BP

Soft Backpack Style Carrying Case

LCS-G1BP

Creative Software

Catalyst Browse

A powerful clip management tool for the latest portfolio of Sony cameras and decks.

Catalyst Prepare

The fast, simple, reliable path from camera to post.

Headphones

MDR-7506

Stereo professional headphones

ECM-680S

MS stereo shotgun Electret condenser microphone

ECM-MS2

ECM-VG1

Shotgun Electret condenser microphone

Tripods and Supports

VCT-SP2BP

Multi-function Camcorder Shoulder Support

UWP-D Series Microphone Packages

UWP-D11

Belt-pack UWP-D wireless microphone package

UWP-D12

UWP-D wireless microphone package with handheld transmitter

MDR-7510

Studio professional headphones

Lights

HVL-LBPC

LED battery video light

Option Boards, Modules and Plug-ins

CBK-NA1

3G/4G/LTE and Wi-Fi network adapter kit for XDCAM camcorders

CBK-WA02

5GHz/2.4GHz Wireless LAN Adapter

MEAD-MS01

Adaptor for using Memory Stick™ with XDCAM EX products

MEAD-SD02

Adaptor for using SD Card™ with XDCAM EX products

Other Accessories

UWP-D16

Belt-pack UWP-D wireless microphone package with XLR plug-on transmitter

XDCAM (Disc/Memory)

SBAC-US30

SxS PRO+ and SxS-1 solid state memory USB 3.0 reader/writer

SBAC-UT100

Dual slots SxS PRO+ and SxS-1 solid state memory Thunderbolt 2 and USB 3.0 reader/writer

XQD Series

QDG-128A

128 GB XQD G Series memory card for professional shooting

QDG-32A

32 GB XQD G Series memory card for professional shooting

QDG-64A

64 GB XQD G Series memory card for professional shooting

IFU-WLM3

USB wireless LAN module

Portable Storage

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